

Title

Hair Combing Apparatus for Hair Coloring and The Like

Cross Reference of Related Application

5 This is a regular application of a provisional application, application number 60/468,968, filed 05/09/2003.

Background of the Present Invention

Field of Invention

10 The present invention relates to a hair comb, and more particularly to a hair combing apparatus for hair coloring and the like, wherein the combing teeth are transversely extended from the comb body to perpendicularly hold the bristles of the brush members in position in such a manner that the colorant on the bristles can 3-dimensionally contact with the hairs of the user so as to effectively and evenly apply the colorant on the user's hairs.

Description of Related Arts

15 Nowadays, there are hundreds of different brands of hair coloring have been sold in the drugstores such that people would like to color their hairs by themselves at home. Some hair coloring tools have been developed to help the users to color their own hairs easily.

20 In order to self-color theirs own hairs, the users usually use a brush to apply a colorant on the hairs and a comb to evenly spread out the colorant throughout each hair from its root to its tip. It is worth to mention that the roots of the hairs are spacedly growing on the scalp of the user while the hairs are bundled up together between the roots

and the ends thereof. Therefore, it is difficult to evenly apply the colorant on the roots of the hairs.

Since the colorant contains chemical substances, the user has to carefully apply the colorant on the hairs to prevent the colorant contacts with the scalp of the user. However, it is difficult to practically use the brush to evenly apply on the hairs from the roots to the ends. As a result, a relatively large portion of the colorant will be stayed at the roots of the hairs and the ends thereof while a relatively small portion of the colorant is applied at the mid-portions of the hairs. In other words, uneven color intensity will be formed on the hairs.

In addition, it is impossible for the user to apply the colorant on the hairs via the brush by herself. Therefore, such conventional method of using the brush and the comb for hair coloring requires another individual for operation. In other words, the user cannot self-color her own hairs though the hair coloring operation.

An improved comb comprises a container formed thereon for containing the colorant wherein a plurality of channels are formed along the teeth of the comb to communicate with the container in such a manner that by applying a squeezing force on the container, the colorant is dislodged from the teeth of the comb through the channels. Therefore, the user is able to self-finish the hair coloring operation to apply the colorant on the hairs through the combing operation.

However, in order to apply the colorant at the roots of the hairs, the colorant may accidentally stay on the scalp of the user, which may damage the scalp of the user. Even though the user is able to squeeze the container to control the flow of the colorant dislodged from the teeth of the comb, the squeezing operation leads to different operational results depending with the squeezing force applied by the user. Therefore, such improved comb with the container is disadvantageous in practical use.

Summary of the Present Invention

A main object of the present invention is to provide a hair combing apparatus for hair coloring and the like, wherein the combing teeth are transversely extended from

the comb body to perpendicularly hold the bristles of the brush members in position in such a manner that the colorant on the bristles can be 3-dimensionally contacted with the hairs of the user so as to effectively and evenly apply the colorant on the user's hairs.

Another object of the present invention is to provide a hair combing apparatus
5 for hair coloring and the like, wherein the hair coloring operation is quick and simple that the user is able to comb his/her hairs via the hair combing apparatus.

Another object of the present invention is to provide a hair combing apparatus for hair coloring and the like, wherein the brush members are upwardly extended along the combing teeth in such a manner that when the combing teeth are slid on the scalp of
10 the user, the colorant on the brush members will not contact with the scalp of the user so as to minimize the damage of the scalp of the user.

Another object of the present invention is to provide a hair combing apparatus for hair coloring and the like, wherein the comb body has a plurality of guiding through slots communicating with the combing teeth in such a manner that when the combing
15 teeth are slid on the scalp of the user, the hairs are allowed to pass through the comb body through the guiding through slots so as to enhance the hair coloring operation of the present invention, especially for the user having long hairs.

Another object of the present invention is to provide a hair combing apparatus for hair coloring and the like, wherein no expensive or complicated structure is required
20 to employ in the present invention in order to achieve the above mentioned objects. Therefore, the present invention successfully provides an economic and efficient solution not only for providing a hair coloring tool to effectively and evenly apply the colorant on the hairs but also for facilitating the practical use of the hair combing apparatus.

Accordingly, in order to accomplish the above objects, the present invention
25 provides a hair combing apparatus for applying a colorant on a user's hairs, comprising:

an elongated comb body having a handle portion and a guiding portion extended from the handle portion to define a guiding wall on the guiding portion;

a plurality of combing teeth transversely and spacedly extended along a bottom edge of the guiding wall of the comb body; and

a plurality of brush members upwardly and spacedly extended along each of the combing teeth for contacting with the hairs of the user;

5 thereby, when the colorant is applied on the brush members, the user is able to slide the combing teeth from a scalp of the user at a position slightly above roots of the hairs until tips of the hairs to guide the hairs of the user in 3-dimensionally contact with the brush members so as to evenly apply the colorant throughout the roots of the hairs to the ends thereof.

10 These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

Brief Description of the Drawings

Fig. 1 is a perspective view of a hair combing apparatus for hair coloring and the like according to a preferred embodiment of the present invention.

15 Fig. 2 is a perspective view of the hair combing apparatus without the brush members according to the above preferred embodiment of the present invention, illustrating the combing teeth communicating with the guiding through slots.

Fig. 3 is a front view of the hair combing apparatus for hair coloring and the like according to the above preferred embodiment of the present invention.

20 Figs. 4A and 4B illustrate an hair coloring operation of the hair combing apparatus for hair coloring and the like according to the above preferred embodiment of the present invention.

Detailed Description of the Preferred Embodiment

Referring to Fig. 1 of the drawings, a hair combing apparatus for hair coloring and the like according to a preferred embodiment of the present invention is illustrated, wherein the hair combing apparatus, which is adapted for applying a colorant 1 on a user's hairs 2, comprises an elongated comb body 10 having a handle portion 11 and a guiding portion 12 extended from the handle portion 11 to define a guiding wall 121 on the guiding portion 12.

The hair combing apparatus further comprises a plurality of combing teeth 20 transversely and spacedly extended along a bottom edge of the guiding wall 121 of the comb body 12 and a plurality of brush members 30 upwardly and spacedly extended along each of the combing teeth 20 for contacting with the hairs 2 of the user.

According to the preferred embodiment, the comb body 10 is shaped and sized to have an elongated member wherein the handle portion 11 of the comb body 10 is defined at a rear portion of the comb body 10 and the guiding portion 12 is defined at a front portion of the comb body 10 in such a manner that the guiding wall 121 is formed on the guiding portion 12 of the comb body 10.

As shown in Fig. 2, each of the combing teeth 20 has an inner end 21 transversely extended from the bottom edge of the guiding wall 121 of the comb body 10 and a tapered outer end 22 adapted for efficiently guiding the respective combing tooth 20 to comb the hairs 2 of the user. As shown in Fig. 3, the combing teeth 20 are perpendicularly extended from the bottom edge of the guiding wall 121 of the comb 10 to form a L-shaped structure.

Each of the combing teeth 20 has a predetermined length wherein the combing teeth 20 are gradually increased with the lengths thereof at a direction from a middle of the guiding wall 121 to two ends thereof. Therefore, a curved contacting line 201 is formed by the outer ends 22 of the combing teeth 20 for contacting with the scalp 3 of the user. It is worth to mention that the scalp 3 of the user has a curvature in such a manner that the outer ends 22 of the combing teeth 20 are fittingly contacted with the scalp 3 of the user to guide the combing teeth 20 to comb the user's hairs 2.

A guiding groove 23 is defined between each two combing teeth 20 for guiding the hairs 2 of the user to slide from the outer ends 22 of the combing teeth 20 towards the inner ends 21 thereof, so as to guide the brush members 30 for contacting with the hairs 2 of the user.

5 The brush members 30 are spacedly extended along each of the combing teeth 20 from the inner end 21 to the outer end 22 thereof wherein each of the brush members 30 comprises a plurality of bristles 31 upwardly extended from the respective combing tooth 20 for enhancing a contacting area between the brush member 20 and the user's hairs 2. Accordingly, the bristles 31 are capable of holding the colorant 1 thereon such
10 that when the bristles 31 are contacted with the user's hairs 2, the colorant 1 can be substantially applied on the user's hairs.

As shown in Fig. 3, each of the brush members 30 has a predetermined height wherein the brush members 30 gradually reduce their heights at a direction from the inner end 21 of the respective combing tooth 20 to the outer end 22 thereof. Therefore, when
15 the combing teeth 20 slide on the user's hairs 2 at a direction from the outer ends 22 combing teeth 20 to the inner ends 21 thereof, the brush members 30 with the gradually increasing heights along the respective combing tooth 20 substantially contact with different portions of the user's hairs 2 so as to enhance the colorant 1 evenly applied on the user's hairs 2.

20 As shown in Fig. 2, the comb body 10 further has a plurality of guiding through slots 13 spacedly formed on the guiding portion 12 of the comb body 10 to align with the guiding grooves 23 respectively, wherein each of the guiding through slots 13 is formed on the guiding wall 121 at a position between each two combing teeth 20 to communicate with the respective guiding groove 23. Therefore, when the user's hairs are slid along the
25 guiding grooves 23 to contact with the brush members 30 respectively, the user's hairs are guided to slide through the guiding wall 121 through the guiding through slots 13 respectively so as to enhance the hair coloring operation of the present invention.

The hair combing apparatus further comprises a plurality of additional combing teeth 40 transversely and spacedly extended along the bottom edge of the guiding wall
30 121 at a direction opposed to the combing teeth 20 and a plurality of additional brush members 50 upwardly and spacedly extended along each of the additional combing teeth 40 for contacting with the hairs 2 of the user.

According to the preferred embodiment, each of the additional combing teeth 40, which is shaped and sized as the combing tooth 20, has an inner end 41 transversely extended from the bottom edge of the guiding wall 121 of the comb body 10 and a tapered outer end 42 adapted for guiding the respective additional combing tooth 40 to comb the hairs 2 of the user. In addition, the additional combing teeth 40 gradually increase with their lengths at a direction from a middle of the guiding wall to two ends thereof.

An additional guiding groove 43 is defined between each two additional combing teeth 40 to communicate with the respective guiding groove 23 through the guiding through slot 13 of the guiding wall 121. Therefore, the user's hairs 2 are allowed to slidably pass through the guiding grooves 23 to the additional guiding grooves 43 through the guiding through slots 13 so as to contact with the brush members 30 and the additional brush members 50 respectively.

Each of the additional brush members 50, which is constructed as the brush members 30, comprises a plurality of additional bristles 51 upwardly extended from the respective additional combing tooth 40 for enhancing a contacting area between the additional brush member 50 and the user's hairs 2.

In other words, the addition combing teeth 40 and the additional brush members 50 are symmetrical to the combing teeth 20 and the brush members 30 respectively in such a manner that the user is able to use his or her right hand or left hand to operate the hair combing apparatus of the present invention to color his or her hairs. Furthermore, the brush members 30 and the addition brush members 50 respectively provided at two sides of the comb body 10 can increase the contacting area with the user's hairs 2 so as to effectively apply the colorant 1 on the user's hairs 2. As shown in Fig. 4B, the roots of user's hairs 2 are contacted with the brush members 30 while the tips of the user's hairs 2 are contacted with the additional brush members 50 so that the colorant 1 can be effectively applied on the entire hairs 2 of the user through the simple combing operation of the present invention.

In order to operate the hair combing apparatus of the present invention, the user is able to hold the handle portion 11 of the comb body 10 to guide the outer ends 22 of the combing teeth 20 at the scalp of the user, as shown in Fig. 4A. By sliding the combing teeth 20 on the scalp of the user, the roots of the hairs are guided to slide along

the guiding grooves 23 so as to contact with the brush members 30. Therefore, by continuously sliding combing teeth 20 along the user's hairs 2, as shown in Fig. 4B, the colorant 1 at the brush members 30 will evenly apply on the hairs 2 of the user from the roots to the ends thereof. For a lady user having a long hair, the combing teeth 20 will
5 guide the hairs 2 of the user to slide to the additional combing teeth 40 through the guiding wall 121 to contact with the additional brush members 50 so as to provide a quick and easy operation for hair coloring, as shown in Fig. 4B.

It is worth to mention that the user's hairs not only are untangled by the combing teeth 20 during the combing operation but also would 3-dimensionally contact
10 with brush members 30 so that the colorant 1 can be evenly applied on the hairs 2 of the user from the hair roots to their tips. Moreover, since only the combing teeth 30 are in contact with the scalp of the user, the colorant 1 at the brush members 30 will not contact with the scalp of the user, so as to prevent the damage of the scalp of the user due to the chemical substance of the colorant 1.

15 In view of above, the hair combing apparatus provide a unique L-shaped combing structure that the combing teeth 20 are transversely extended from the comb body 10 in such a manner that the combing teeth 20 can untangle the user's hairs 2 and guide the user's hairs 2 to contact with the brush members 30 while colorant 1 is prevented to stay on the scalp of the user.

20 One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and not intended to be limiting.

It will thus be seen that the objects of the present invention have been fully and effectively accomplished. It embodiments have been shown and described for the
25 purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.